

CLAIM AMENDMENTS

Claims 1-20 (cancelled).

Claim 21 (new): An optical input preamplifier, comprising:

a photodiode for converting an input optical signal into a photocurrent as an output current;

means for pre-amplifying said output current from said photodiode, wherein said output current is pre-amplified to form a pre-amplifying current, wherein said pre-amplifying means comprises a feedback circuit creating a feedback signal in responsive to said output current from said photodiode to substantially form said pre-amplifying current, and an emitting follower electrically connected to said feedback circuit to output said pre-amplifying current therefrom; and

an output circuit device converting said pre-amplifying current into an output signal.

Claim 22 (new): The optical input preamplifier, as recited in claim 21, wherein said feedback circuit comprises a first transistor electrically connected with said photodiode and a second transistor electrically coupled with said first transistor such that when said output current from said photodiode is transmitted to said second transistor through said first transistor, said second transistor forms said feedback signal and transmits back to said first transistor so as to form said pre-amplifying current.

Claim 23 (new): The optical input preamplifier, as recited in claim 22, wherein said first transistor is a NPN transistor and said second transistor is a PNP transistor, wherein said second transistor is electrically coupled with said first transistor to form a positive feedback circuit of said feedback circuit.

Claim 24 (new): The optical input preamplifier, as recited in claim 22, wherein said first transistor is a PNP transistor and said second transistor is a NPN transistor, wherein said second transistor is electrically coupled with said first transistor to form a positive feedback circuit of said feedback circuit.

Claim 25 (new): The optical input preamplifier, as recited in claim 23, wherein said feedback circuit further comprises a plurality of diodes electrically coupling between said first and second transistors, wherein said diodes are electrically connected in a series connection.

Claim 26 (new): The optical input preamplifier, as recited in claim 24, wherein said feedback circuit further comprises a plurality of diodes electrically coupling between said first and second transistors, wherein said diodes are electrically connected in a series connection.

Claim 27 (new): The optical input preamplifier, as recited in claim 22, wherein said emitting follower comprises a third transistor electrically coupled with said first transistor to receive said pre-amplifying current therefrom and an inverting amplifier for outputting said pre-amplifying current from said third transistor.

Claim 28 (new): The optical input preamplifier, as recited in claim 23, wherein said emitting follower comprises a third transistor electrically coupled with said first transistor to receive said pre-amplifying current therefrom and an inverting amplifier for outputting said pre-amplifying current from said third transistor.

Claim 29 (new): The optical input preamplifier, as recited in claim 24, wherein said emitting follower comprises a third transistor electrically coupled with said first transistor to receive said pre-amplifying current therefrom and an inverting amplifier for outputting said pre-amplifying current from said third transistor.

Claim 30 (new): The optical input preamplifier, as recited in claim 29, wherein said third transistor is a NPN transistor electrically coupled with said first transistor to direct said pre-amplifying current to said inverting amplifier.

Claim 31 (new): The optical input preamplifier, as recited in claim 29, wherein said third transistor is a PNP transistor electrically coupled with said first transistor to direct said pre-amplifying current to said inverting amplifier.

Claim 32 (new): The optical input preamplifier, as recited in claim 27, wherein said inverting amplifier has two output ends respectively connecting with said output circuit device for outputting said pre-amplifying current thereto and connecting with a

feedback resistance to feedback said pre-amplifying current to said first transistor through said feedback resistance.

Claim 33 (new): The optical input preamplifier, as recited in claim 30, wherein said inverting amplifier has two output ends respectively connecting with said output circuit device for outputting said pre-amplifying current thereto and connecting with a feedback resistance to feedback said pre-amplifying current to said first transistor through said feedback resistance.

Claim 34 (new): The optical input preamplifier, as recited in claim 31, wherein said inverting amplifier has two output ends respectively connecting with said output circuit device for outputting said pre-amplifying current thereto and connecting with a feedback resistance to feedback said pre-amplifying current to said first transistor through said feedback resistance.

Claim 35 (new): The optical input preamplifier, as recited in claim 33, wherein said output circuit device comprises an amplifying circuit arrangement electrically connected with said pre-amplifying means to amplify said pre-amplifying current, a current-to-voltage converter converting said pre-amplifying current into an output voltage, and a buffering circuit buffering said output voltage as said output signal proportional to said output current of said photodiode.

Claim 36 (new): The optical input preamplifier, as recited in claim 34, wherein said output circuit device comprises an amplifying circuit arrangement electrically connected with said pre-amplifying means to amplify said pre-amplifying current, a current-to-voltage converter converting said pre-amplifying current into an output voltage, and a buffering circuit buffering said output voltage as said output signal proportional to said output current of said photodiode.

Claim 37 (new): The optical input preamplifier, as recited in claim 35, wherein said amplifying circuit arrangement comprises a plurality of amplifying circuits electrically connected in a series connection to amplify said pre-amplifying current from said pre-amplifying means.

Claim 38 (new): The optical input preamplifier, as recited in claim 36, wherein said amplifying circuit arrangement comprises a plurality of amplifying circuits electrically

connected in a series connection to amplify said pre-amplifying current from said pre-amplifying means.

Claim 39 (new): An optical input preamplifier, comprising:

a photodiode for converting an input optical signal into a photocurrent as an output current;

means for pre-amplifying said output current from said photodiode, wherein said output current is pre-amplified to form a pre-amplifying current; and

an output circuit device converting said pre-amplifying current into an output signal, wherein said output circuit device comprises an amplifying circuit arrangement electrically connected with said pre-amplifying means to amplify said pre-amplifying current, a current-to-voltage converter converting said pre-amplifying current into an output voltage, and a buffering circuit buffering said output voltage as said output signal proportional to said output current of said photodiode.